



BruxZir[®] *NOW*

Milling Blocks

USER MANUAL



1 Product Description

BruxZir® NOW Milling Blocks are pre-shaded, fully sintered zirconia CAD/CAM blocks used for manufacturing single-unit dental restorations with the TS150™ chairside mill from IOS Technologies, Inc. The milling blocks are available in multiple shades that correspond to the VITA® Classical shade system. Each block pack includes three blocks, three milling burs and the milling strategies necessary for the TS150 to process BruxZir NOW.

The overall workflow for preparing a restoration using a BruxZir NOW milling block is shown below.



2 Technical Data Table

As measured according to ISO 6872

Table 1	
Classification - Type II, Class 6	
Coefficient of Thermal Expansion (CTE) (25-500°C)	11 x 10 ⁻⁶ K
Flexural Strength	>800 MPa
Density	6.05 g/cm ³

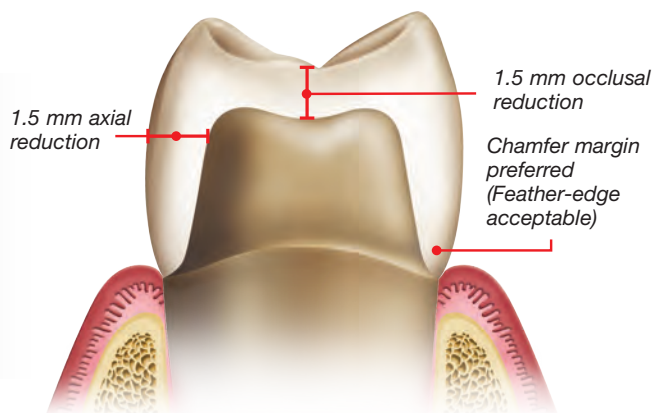
3 Scanning

Follow the manufacturer's instructions to scan the oral environment using your intraoral scanner.

When scanning is complete, press SEND to deliver the scan file to the FastDesign™ design software.

4 Designing the Restoration

This illustration shows an ideal 1.5 mm reduction for a posterior BruxZir NOW crown with a chamfer margin. BruxZir NOW zirconia performs well with a feather-edge margin at minimal thickness; however this is not optimal conditions for the restoration. Maintaining 1.5 mm of thickness allows you to safely adjust the crown if necessary when checking the occlusion. While BruxZir NOW zirconia can be milled as thin as 0.7 mm, it cannot be adjusted at this thickness without the risk of breakage.



Failure to observe the wall thickness recommendations may result in fracture of the final restoration.

For specific instructions on the design of the restoration please refer to the FastDesign QuickStart Guide, which can found online at www.ios3d.com/access.

- 1.5 mm ideal reduction (0.7 minimum)
- Chamfer or shoulder margins preferred. Feather-edge OK
- Buccal and lingual walls must be convergent
- Preparation should be cut in three planes

5 Milling the Restoration

NOTE: To ensure milling success, a site inspection must be completed by your service representative before milling BruxZir NOW Milling Blocks. Please call your TS150 service technician for help with site inspection.

Warning: Material may break loose from sprue if dropped on a hard surface.

Do not inhale dust. Do not let dust into eyes or have prolonged contact directly with the skin. Personal protective equipment (PPE) such as gloves, masks, and lab coats are recommended in order to avoid possible contact to and irritation of skin or eyes during processing.

NOTE: To request the SDS for this product, call Glidewell Direct at 800-303-3975.

5.1 Coolant concentration and cleaning the trough filter

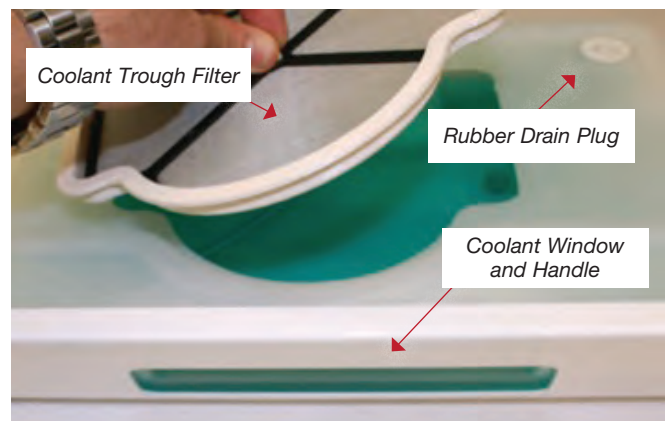
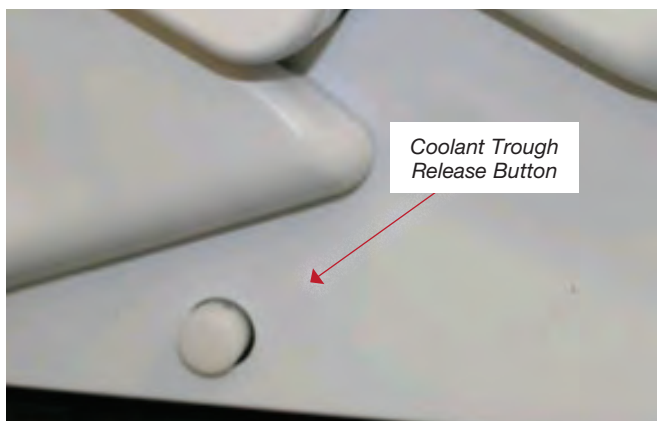
The time frame for changing the coolant is dependent on mill usage, but generally it should be changed on a weekly basis.

Warning: Ensure that the coolant trough filter is cleaned according to the TS150 QuickStart Guide before and after any BruxZir NOW blocks are milled. Failure to do so may result in low coolant pressure and a pause in subsequent milling procedures.

- To remove the coolant trough, press the coolant trough release button on the side of the system and remove trough using the trough handle.
- Grasp the filter and remove it from the top of the trough. Empty any large particles on top of the filter into a trash receptacle. Once the large particles have been removed, the filter can be washed in warm water with a mild detergent to remove the spindle oil. Be sure to rinse all of the detergent out of the filter before reusing it.
- Empty the trough using the rubber drain plug and then rinse the trough with distilled or reverse osmosis water. Scoop out any remaining slurry using a large spoon or spatula.

NOTE: It helps to use a toothbrush to clean the inside crevices within the trough.

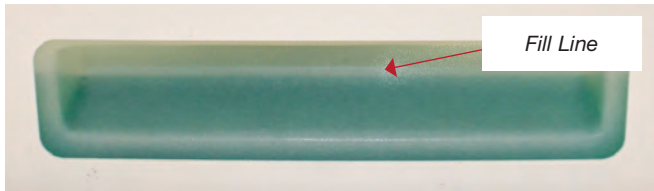
Warning: Sharp milling block particles may be present in the trough, so use care when emptying it. Using gloves is recommended.



IMPORTANT: Make sure to reinsert the plug before reinserting the trough.

5.2 Refilling the coolant trough

Fill the trough with 2.4 L (2.5 quarts) distilled or reverse osmosis water containing 240 mL (8 fl oz) of TS150 mill coolant concentrate. The coolant mixture level should be near the top edge of the handle.



IMPORTANT: Only use distilled or reverse osmosis water in the trough. DO NOT USE standard tap water in the trough, as it contains minerals which will cause scale buildup and premature failure of the seals.

IMPORTANT: Only use mill coolant concentrate supplied by IOS Technologies. This mill coolant concentrate was developed specifically for the TS150. Use of other fluids may damage the machine and void the warranty.

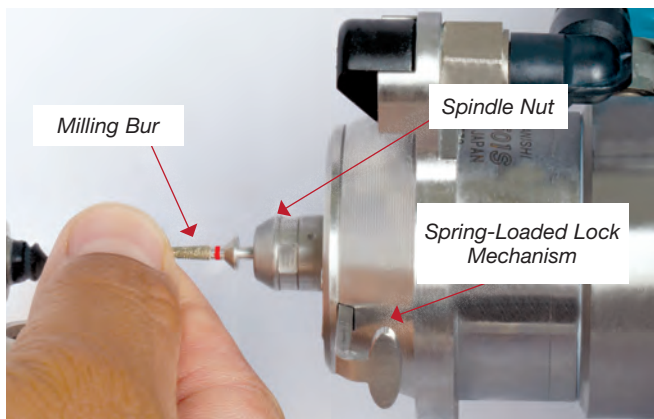
Please refer to your TS150 User Manual for complete information on care and operation.



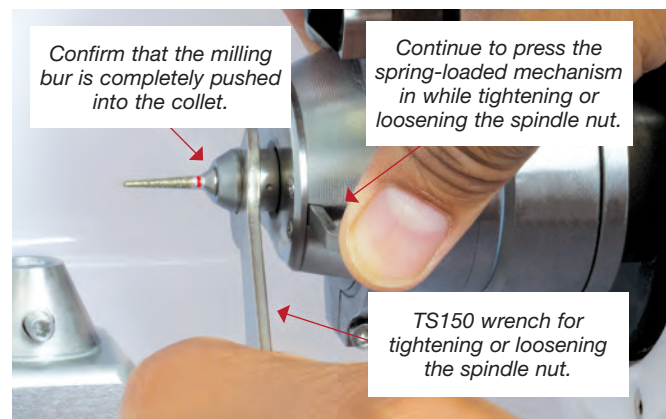
5.3 Loading the bur

NOTE: Each BruxZir NOW Milling Block must be milled with a new, red-stripe bur. A new bur is provided with every block.

The spindle contains a spring-loaded lock mechanism that prevents it from rotating while installing or removing burs. Push this lock in and apply a wrench to the nut. To remove a used bur, rotate the nut counterclockwise to loosen. To install a new bur, rotate the nut clockwise to tighten.

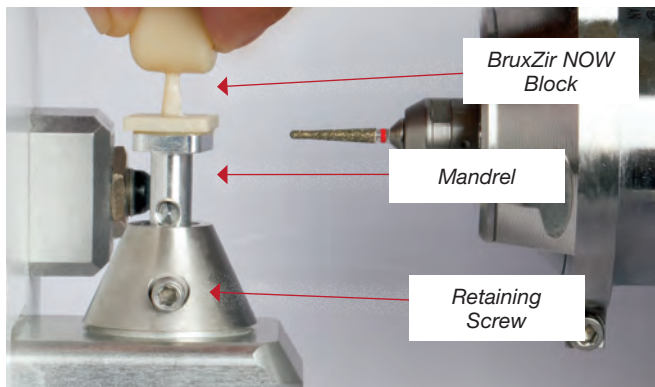


When installing a new bur, push the bur all the way down to the nut, and tighten the nut firmly while holding the spring-loaded lock. It will take about four 90° turns to completely tighten the bur.

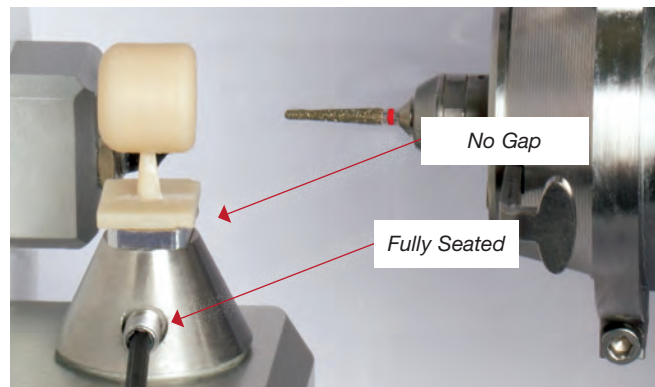


After tightening the nut, make sure the spring-loaded mechanism is all the way out and the spindle rotates freely. You are now ready to run the program.

5.4 Loading the BruxZir NOW Milling Block



Position slot on mandrel toward rear of mill so retaining screw hole is visible above the retaining screw. Push it all the way down until it is fully seated.

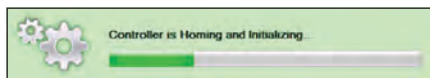


Slightly rotate the material block side-to-side while tightening the retaining screw clockwise until the retaining screw is fully seated into the depression. The retaining screw should be tightened firmly.

5.5 Loading the design file



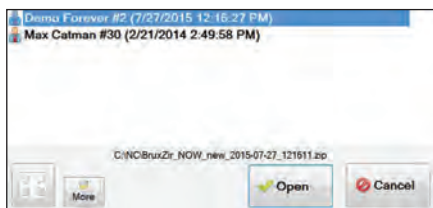
A. From the TS150 start screen, select **TECHNICIAN** or **OPERATOR** and log in.



B. After selection, the TS150 will go through a self-check sequence which will verify that motion control and other systems are working correctly.



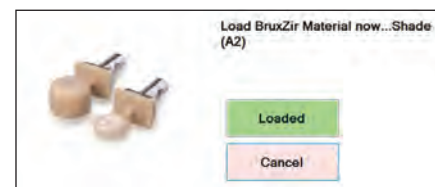
C. To start the machining process, select **LOAD PROGRAM** from the home screen.



D. Select the case file to be milled and **OPEN**.

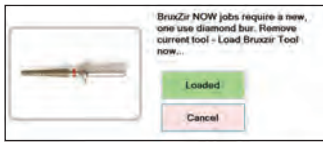


E. If a new tool is needed the load tool dialog will appear as soon as you select **LOADED**. (See section 5.3)



F. When you select **OPEN** the system will automatically open the load material dialog. (See section 5.4)

5.5 Loading the design file (continued)



G. A brand-new tool is required for each Bruzir NOW job. The TS150 will verify this information and the message shown will depend on whether the current tool has remaining life or not.



H. Once the user selects **LOADED**, the job will automatically start and the UI will change to the above screen.



I. Selecting **PAUSE** will change the UI to the above screen.

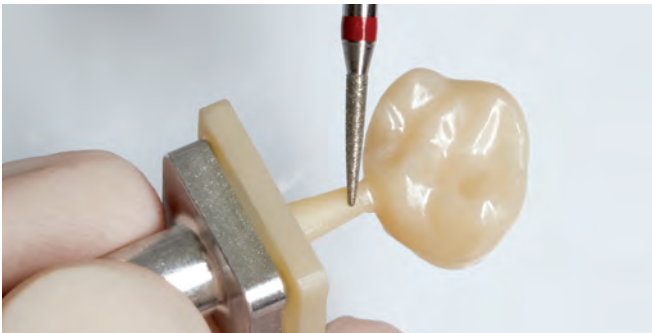
From this screen, the user can either cancel or resume the job.



J. When a job completes, the above dialog appears.

NOTE: Once milled, carefully remove the restoration from the block and remove all residual dust from the restoration.

6 Finishing



Step 1: Remove restoration from the block

Use fine-diamond bur at high speed.



Step 2: Smooth out the sprue

Use fine-diamond bur at high speed.

NOTE: Margin finishing and surface polishing are optional, but if performed they should be done as follows:



Step 3: Margin finishing

Use a blue wheel or blue rubber wheel to finish the margin



Step 4: Surface polishing

Use diamond polishing paste (fine) and a standard stiff-bristle brush to polish the surface.

7 Stain and Glaze

NOTE: These steps are optional and may be done as desired. BruxZir NOW Milling Blocks are individually designed to match the body of the indicated VITA shade. Since the blocks are monochromatic (one color), staining may be performed to match specific prescriptions or to achieve a gingival-to-incisal blend of color.

Follow the manufacturer's directions for using stain or glaze.

NOTE: Only low-fusing glaze may be used.

8 Cementation

There is no bonding required for BruxZir NOW crowns, although may be done if preferred. The dental professional may use conventional cementation techniques to cement the restoration.

Recommended: The dental professional should use resin-reinforced glass ionomers, resin cements or self-adhesive resin cements to cement the BruxZir NOW restorations. A zirconia primer must be placed in the crown prior to cementation.

9 Questions/Comments

For questions and/or comments or for further instructions regarding the use of the product, please contact Glidewell Direct in the U.S. at 18651 Von Karman Ave., Irvine, CA 92612 or by calling 888-303-3975.

10 Frequently Asked Questions

- 1. How many blocks and burs are in each package?**
 - A package of BruxZir NOW Milling Blocks includes three blocks and three burs. Please note: These are single-use burs that are thrown away after each use.
- 2. Are there special tools required for this block?**
 - Yes, you **MUST** use a brand-new BruxZir NOW bur with each block. The user cannot use any other type of bur to mill this material.
- 3. I tried to install and run a BruxZir NOW job and my mill prompted me to contact my distributor about BruxZir NOW. What should I do now?**
 - Congratulations—you're almost ready to start milling BruxZir NOW. Please contact your distributor. After a site assessment has been performed and verified, a representative of IOS will enable your TS150 for BruxZir NOW milling capabilities.
- 4. Why does a site inspection need to take place for me to mill BruxZir NOW?**
 - A service technician will need to ensure your compressor can meet the required specifications, coolant is flowing sufficiently, and mill is calibrated.
- 5. Can I add porcelain onto the BruxZir NOW crown, to fix a light contact?**
 - Applying any type of add-on material to the crown is not recommended. BruxZir NOW is intended to be a monolithic restoration.
- 6. Zirconia is strong enough for bridges, why can't I do bridges with BruxZir NOW?**
 - We have optimized BruxZir NOW for single-unit posterior crowns only.
- 7. Who should I be ordering my BruxZir NOW milling blocks from?**
 - You should be ordering your BruxZir NOW milling blocks from your TS150 distributor.
- 8. Who should I call for milling-related technical support?**
 - Please contact your distributor or service technician

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